

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



PCT

(43) International Publication Date  
13 April 2006 (13.04.2006)

(10) International Publication Number  
WO 2006/039674 A3

(51) International Patent Classification:  
A23L 2/02 (2006.01)

(74) Agent: RYNDAK, James, D.; Ryndak & Suri LLP, 200 W. Madison Street, Suite 2100, Chicago, IL 60606 (US).

(21) International Application Number:  
PCT/US2005/035550

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 3 October 2005 (03.10.2005)

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: English

Published:

(26) Publication Language: English

— with international search report

(30) Priority Data:  
10/956,660 1 October 2004 (01.10.2004) US  
Not furnished 30 September 2005 (30.09.2005) US

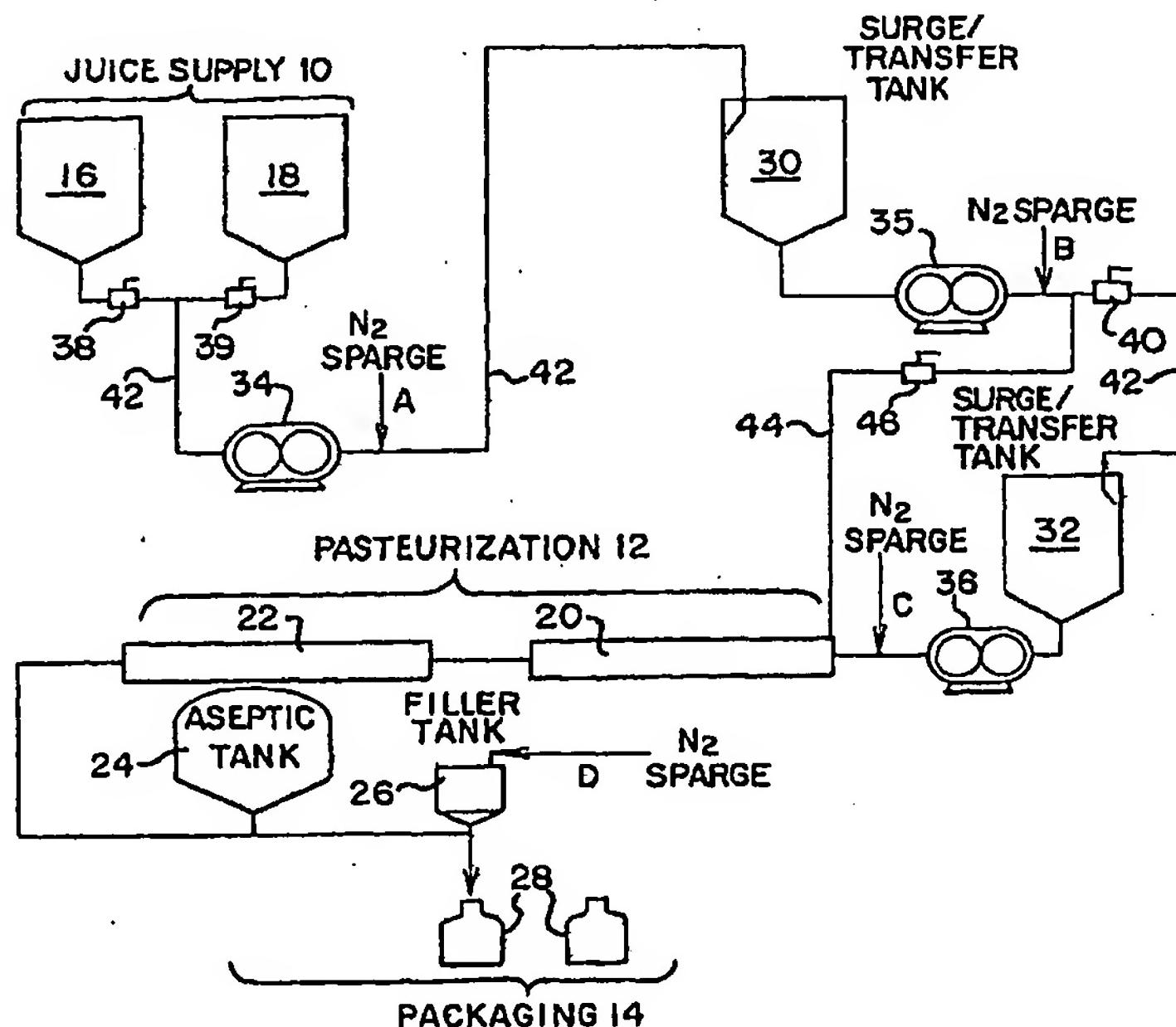
[Continued on next page]

(71) Applicant (for all designated States except US): TROP-ICANA PRODUCTS, INC. [US/US]; 1001 13th Avenue E, Bradenton, FL 34208 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SCHROEN, Jeffrey, P. [US/US]; 24745 Golden Oak Circle, Cary, IL 60013 (US). HITCHCOCK, Bryan, W. [US/US]; 384 E. Pine Lake Circle, Vernon Hills, IL 60061 (US). CHUNG, Yong-soo [KR/US]; 125 N. Wilson Court, Palatine, IL 60067 (US).

(54) Title: A SYSTEM FOR PROCESSING CITRUS JUICE



(57) Abstract: A system and method are disclosed for the processing of a citrus juice (16, 18) for packaging in which the juice is sparged (50) with numerous small bubbles of nitrogen gas at one or more locations during the processing to reduce the levels of dissolved oxygen in the juice and the levels of oxygen in the packaging head space to improve the taste and sensory qualities of the citrus juice and/or to introduce turbulence to the juice (28). The resulting citrus juice has a dissolved oxygen level less than 0.45 ppm.

WO 2006/039674 A3



(88) Date of publication of the international search report:  
1 June 2006

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*